## **EAST Search History**

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	19	(cathode or electrode) with (volt \$8 or potential) with (sulfuric acid or "h.sub.2zo.sub.4") with (oxygen or "o.sub.2") same (activat\$5 or swe\$8 or cycl\$8 or ramp\$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/16 12:19
L2	0	(29/623.1-623.4.ccls.) and (volt \$8 or potential) with (sulfuric acid or "h.sub.2so.sub.4") with (oxygen or "o.sub.2") same (activat\$5 or swe\$8 or cycl\$8 or ramp\$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/16 16:30
S1	1	"10591016"	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:48
S2	1082	502/101.cds.	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:52
S3	128	S2 and (provid\$4 or suppl\$4 or pas\$5 or direc\$5) near5 (potential or voltage)	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:53
S4	25	\$2 and (provid\$4 or suppl\$4 or pas\$5 or direc\$5) near5 (potential or voltage) with cathode	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:53
S5	250	S2 and (potential or voltage) with cathode	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:56
S6	225	S5 not S4	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:56
S7	253	S2 and (potential or voltage) with (cathode or (positive electrode))	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:56
S8	228	S7 not S4	US-PGPUB; USPAT	ADJ	ON	2009/04/07 09:56
S9	44	"129023"	JPO; DERWENT	ADJ	ON	2009/04/07 10:15
S10	7	"822827"	JPO; DERWENT	ADJ	ON	2009/04/07 10:16
S11	3	1996-022827	JPO; DERWENT	ADJ	ON	2009/04/07 10:16
S12	5	"22827"	JPO; DERWENT	ADJ	ON	2009/04/07 10:16
S13	0	JP8-22827	JPO; DERWENT	ADJ	ON	2009/04/07 10:20

S14	0	JP8-22827	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/04/07 10:20
S15	0	JP822827	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/04/07 10:21
S16	0	JP8022827	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/04/07 10:21
S17	79	"022827"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/04/07 10:21
S18	65	"022827"	FPRS; JPO; DERWENT	ADJ	ON	2009/04/07 10:21
S19	0	"022827"	JPO	ADJ	ON	2009/04/07 10:21
S20	65	"022827"	JPO; DERWENT	ADJ	ON	2009/04/07 10:21
S21	1	"0022827"	JPO; DERWENT	ADJ	ON	2009/04/07 10:25
S22	5	"22827"	JPO; DERWENT	ADJ	ON	2009/04/07 10:25
S23	3	1996-022827	JPO; DERWENT	ADJ	ON	2009/04/07 10:30
S24	3	1996-155571	JPO; DERWENT	ADJ	ON	2009/04/07 10:30
S25	2	"08022827"	JPO; DERWENT	ADJ	ON	2009/04/07 10:31
S26	2	"09027327"	JPO; DERWENT	ADJ	ON	2009/04/07 10:36
S27	594	"502".clas. and (phthalocyanines or tetraphenylporphyrin)	US-PGPUB; USPAT	ADJ	ON	2009/04/07 10:46
S28	39	"502".clas. and (phthalocyanines or tetraphenylporphyrin) and cathode with cataly\$4	US-PGPUB; USPAT	ADJ	ON	2009/04/07 10:46
S29	32	"502".clas. and (phthalocyanines or tetraphenylporphyrin) and (cathode with cataly\$4) same fuel cell	US-PGPUB; USPAT	ADJ	ON	2009/04/07 10:48

S30	11	(US-20070167313-\$ or US- 20040028992-\$ or US- 20040058808-\$ or US- 20050221975-\$ or US- 20050088741-\$ or US- 2007007815-\$ or US- 200707111084-\$), did. or (US- 7005401-\$ or US-7208437-\$), did. or (JP-08022827-\$ or JP-	US-PGPUB; USPAT; JPO	ADJ	ON	2009/04/07 10:57
S31	7	09027327-\$).did. S30 and (voltage or potential)	US-PGPUB; USPAT	ADJ	ON	2009/04/07 10:58
S32	55	429/12-46.cds, and (phthalocyanines or tetraphenylporphyrin) and (cathode with cataly\$4) same fuel cell	US-PGPUB; USPAT	ADJ	ON	2009/04/07 11:01
S33	11	429/12-46.cds. and (phthalocyanines or tetraphenylporphyrin) and (cathode with cataly\$4) same fuel cell same methanol	US-PGPUB; USPAT	ADJ	ON	2009/04/07 11:11
S34	15	(US-20070167313-\$ or US- 20040028992-\$ or US- 20040058808-\$ or US- 20050221975-\$ or US- 20050028741-\$ or US- 20070078052-\$ or US- 20070078052-\$ or US- 20070111084-\$).did. or (US- 7005401-\$ or US-7208437-\$ or US-3617388-\$ or US-5151515-\$ or US-517644-\$ or US- 5643689-\$).did. or (JP- 08022827-\$ or JP-09027327-\$). did.	US-PGPUB; USPAT; JPO	ADJ	ON	2009/04/07 11:38
S35	4	S34 and (voltage or potential) not S31	US-PGPUB; USPAT	ADJ	ON	2009/04/07 11:38
S36	1	"10591016"	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:24
S37	1110	502/101.œls.	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:24
S38	520	S37 and cathode with catalyst	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:44
S39	511	S37 and (cathode or positive electrode) with catalyst and fuel cell	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:45
S40	602	S39 and porppyrin or pthalocyanine	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:46
S41	0	S39 and (porppyrin or pthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:46
S42	35	S39 and (porphyrin or pthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:46
S43	4	S39 and (porphyrin or pthalocyanine) and (reference with standard)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:47

S44	5	S39 and (porphyrin or pthalocyanine) and (reference with standard or SHE)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:47
S45	4078	429/40-44.ccls.	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:52
S46	1849	S45 and (cathode or positive electrode) with catalyst	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:52
S47	13	S46 and (porphyrin or pthalocyanine) and (reference with standard or SHE)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:53
S48	14	S46 and (porphyrin or phthalocyanine) and (reference with standard or SHE)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:55
S49	5	S39 and (porphyrin or phthalocyanine) and (reference with standard or SHE)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:55
S50	19	S46 and (porphyrin or phthalocyanine) and (reference with standard or SHE or SCE)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 09:57
S51	13	S46 and (porphyrin or phthalocyanine) and (standard hydrogen electrode or calomel electrode or SHE or SCE)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:00
S52	17	S46 and (porphyrin or phthalocyanine) and (standard hydrogen electrode or calomel electrode or SHE or SCE or normal hydrogen electrode or nhe)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:01
S53	9	S39 and (porphyrin or phthalocyanine) and (standard hydrogen electrode or calomel electrode or SHE or SCE or normal hydrogen electrode or nhe)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:03
S54	42	S39 and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:04
S55	33	S54 not S53	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:04
S56	9	S54 and ((appl\$4 or provid\$4) near3 (voltage or potential))	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:39
S57	4	S54 and (porphyrin or phthalocyanine) same catalyst and ((appl\$4 or provid\$4) near3 (voltage or potential))	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:42
S58	27	429/12-46.ccls. and (porphyrin or phthalocyanine) same catalyst and ((appl\$4 or provid \$4) near3 (voltage or potential))	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:43
S59	1195745	429/12-46.ccls. and (porphyrin or phthalocyanine) and ((appl\$4 or provid\$4) near3 (voltage or potential)) with voltage or potential	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:47

S60	45	429/12-46.cds. and (porphyrin or phthalocyanine) and ((appl\$4 or provid\$4) near3 (voltage or potential)) with (voltage or potential)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:47
S61	3	429/12-46.ccls. and (porphyrin or phthalocyanine) and ((appl\$4 or provid\$4) near3 (voltage or potential)) with (catalyst)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:48
S62	45	429/12-46.ccls, and (porphyrin or phthalocyanine) and ((appl\$4 or provid\$4) near3 (voltage or potential))	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:49
S63	18	502/101.ccls. and catalyst with activat\$4 with (potential or voltage)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:58
S64	3	502/101.ccls. and catalyst with activat\$4 with (potential or voltage) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 10:58
S65	4	429/12-46.ccls. and catalyst with activat\$4 with (potential or voltage) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:00
S66	0	429/12-46.ccls. and catalyst with oxidiz\$4 with (potential or voltage) with precursor and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:03
S67	0	429/12-46.ccls. and catalyst with oxid\$6 with (potential or voltage) with precursor and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:04
S68	18	429/12-46.ccls. and catalyst with oxid\$6 with (potential or voltage) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:04
S69	4	429/12-46.ccls. and catalyst with activat\$5 with (potential or voltage) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:07
S70	5	(429/12-46.ccls. or 502/101. ccls.) and catalyst with activat\$5 with (potential or voltage) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:08
S71	5	(429/12-46.ccls. or 502/101. ccls.) and catalyst with activat\$5 with (potential or voltage or volt) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:09
S72	45	(429/12-46.ccls. or 502/101. ccls.) and catalyst with activat\$5 and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:09

S73	45	(429/12-46.ccls, or 502/101. ccls.) and catalyst with activat\$5 and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:10
S74	2	(429/12-46.ccls, or 502/101. ccls.) and catalyst same precursor with activat\$5 and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:13
S75	6	(429/12-46.ccls, or 502/101. ccls.) and precursor with activat \$5 and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:14
S76	2	(429/12-46.ccls. or 502/101. ccls.) and precursor with activat \$5 and (porphyrin or phthalocyanine) not activated carbon	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:14
S77	56	(429/12-46.ccls. or 502/101. ccls.) and cataly\$5 with activat \$5 and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:15
S78	11	S77 not S73	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:16
S79	62	(429/12-46.ccls, or 502/101. ccls.) and cataly\$5 with activat \$5 with (potential or voltage)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:18
S80	57	S79 not S77	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:18
S81	0	"0822827"	JPO; DERWENT	ADJ	ON	2009/07/17 11:29
S82	2	"08022827"	JPO; DERWENT	ADJ	ON	2009/07/17 11:29
S83	2	"09027327"	JPO; DERWENT	ADJ	ON	2009/07/17 11:29
S84	3	(502/101.ccls.) and precursor with (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:48
S85	51	(502/101.ccls.) and (porphyrin or phthalocyanine)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:49
S86	1	(502/101.ccls.) and (porphyrin or phthalocyanine) and catalyst with ("1.3 V" or "1.4 V" or "1.5 V" or "1.6 V")	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:50
S87	0	(502/101.ccls.) and (porphyrin or phthalocyanine) and catalyst with ("1.3V" or "1.4V" or "1.5V" or "1.6V")	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:50
S88	1	(502/101.ccls.) and (porphyrin or phthalocyanine) and catalyst with ("1.3 V" or "1.4 V" or "1.5 V" or "1.6 V")	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:51

S89	1	(502/101.ccls.) and (porphyrin or phthalocyanine) and activat \$5 with ("1.3 V" or "1.4 V" or "1.5 V" or "1.6 V")	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:51
S90	0	(502/101.ccls.) and (porphyrin or phthalocyanine) with ("1.3 V" or "1.4 V" or "1.5 V" or "1.6 V")	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:51
S91	0	(502/101.ccls.) and (porphyrin or phthalocyanine) with activat \$5	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:51
S92	14	429/12-46.ccls. and (porphyrin or phthalocyanine) with (precursor or activat\$5)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:52
S93	13	(429/12-46.ccls. or 502/101. cds.) and (porphyrin or phthalocyanine) with cataly\$4 and (volt\$4 or potential) near2 (cycl\$4 or stepp\$4 or sweep\$4)	US-PGPUB; USPAT	ADJ	ON	2009/07/17 11:57
S94	66	(429/12-46.ccls. or 502/101. ccls.) and cataly\$4 with (volt\$4 or potential) with (activat\$6)	US-PGPUB; USPAT	ADJ	ON	2010/01/15 15:38
S95	20	(US-20070167313-\$ or US- 20040028992-\$ or US- 20040028992-\$ or US- 20040028988-\$ or US- 200500221975-\$ or US- 20060088741-\$ or US- 20070078052-\$ or US- 20070078052-\$ or US- 20070011084-\$ or US- 20030144134-\$ or US- 2003001889-\$), idid. or (US- 7005401-\$ or US-705401-\$ or US- 20030091889-\$), idid. or (US- 7005401-\$ or US-5151515-\$ or US-51644-\$ or US- 5643689-\$ or US-7060648-\$), idid or (UR-90022827-\$) or UP-	US-PGPUB; USPAT; JPO	ADJ	ON	2010/01/15 15:45
S96	2	S95 and potential sweep\$5	US-PGPUB; USPAT	ADJ	ON	2010/01/15 15:45
S97	14	(429/12-46.ccls. or 502/101. ccls.) and cataly\$6 with potential sweep\$5	US-PGPUB; USPAT	ADJ	ON	2010/01/15 15:46
S98	0	(429/12-46.ccls. or 502/101. ccls.) and cataly\$6 with volt\$4 sweep\$5	US-PGPUB; USPAT	ADJ	ON	2010/01/15 15:47
S99	419	(429/12-46.ccls. or 502/101. ccls.) and (volt\$4 or potential) near2 (cycl\$4 or stepp\$4 or sweep\$4)	US-PGPUB; USPAT	ADJ	ON	2010/01/15 15:48
S100	55	(429/12-46.ccls. or 502/101. ccls.) and (volt\$4 or potential) near2 (cycl\$4 or stepp\$4 or sweep\$4) with cataly\$6	US-PGPUB; USPAT	ADJ	ON	2010/01/15 15:48
S101	5	S100 and S94	US-PGPUB; USPAT	ADJ	ON	2010/01/15 16:00

S102	22	(429/12-46.ccls. or 502/101. ccls.) and (volt\$4 or potential) near2 (scan\$5) with cataly\$6	US-PGPUB; USPAT	ADJ	ON	2010/01/15 16:02
S103	0	"502" and fuel cell (volt\$4 or potential) near2 (scan\$5 or sweep\$5 or step\$5 or cycl\$5) with cataly\$6 with (activat\$6 or impurit\$5 or purif\$6)	US-PGPUB; USPAT	ADJ	ON	2010/01/15 16:07
S104	0	"502" clas, and fuel cell (volt\$4 or potential) near2 (scan\$5 or sweep\$5 or step\$5 or cycl\$5) with cataly\$6 with (activat\$6 or impurit\$5 or purif\$6)	US-PGPUB; USPAT	ADJ	ON	2010/01/15 16:08
S105	6	"502".clas. and fuel cell and (volt \$4 or potential) near2 (scan\$5 or sweep\$5 or step\$5 or cycl\$5) with cataly\$6 with (activat\$6 or impurit\$5 or purif\$6)	US-PGPUB; USPAT	ADJ	ON	2010/01/15 16:08
S106	1	"20030091889"	US-PGPUB; USPAT	ADJ	ON	2010/10/18 17:48
S107	143	(429/400-535.cds. or ("29".clas. and fuel cell)) and (voltage or potential) with sulfuric acid	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:51
S108	7	(429/400-535.ccls. or ("29".clas. and fuel cell)) and (voltage or potential) with sulfuric acid with (activat\$5 or swe\$8)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:52
S109	41	(429/400-535.cds. or ("29".clas. and fuel cell)) and sulfuric acid with (activat\$5 or swe\$8)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:53
S110	41	(429/400-535.ccls. or ("29".clas. and fuel cell)) and sulfuric acid with (activat\$5 or swe\$8 or ramp \$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:54
S111	25	(429/400-535.cds. or ("29".das. and fuel cell)) and "h.sub.2so. sub.4" with (activat\$5 or swe\$8 or ramp\$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:54
S112	11	(429/400-535.ccls. or ("29".clas. and fuel cell)) and (voltage or potential) with "h.sub.2so. sub.4" with (activat\$5 or swe\$8)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:55
S113	11	(429/400-535.cds. or ("29".clas. and fuel cell)) and (voltage or potential) with "h.sub.2so. sub.4" with (activat\$5 or swe\$8 or ramp\$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:55
S114	22	(429/400-535.cds. or ("29".clas. and fuel cell)) and (voltage or potential) with "h.sub.2so. sub.4" with (activat\$5 or swe\$8 or ramp\$6 or cycl\$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 15:55

S115	72	(429/400-535.cds. or ("29".das. and fuel cell)) and (volt\$8 or potential) with (sulfuric acid or "h.sub.2so.sub.4") with (activat \$5 or swe\$8 or cycl\$8 or ramp \$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 16:13
S116	10	(429/400-535.cds. or ("29".das. and fuel cell)) and (volt\\$8 or potential) with (sulfuric acid or "h.sub.2so.sub.4") with (oxygen or "o.sub.2") same (activat\\$5 or swe\\$8 or cyd\\$8 or ramp\\$6)	US-PGPUB; USPAT	ADJ	ON	2010/12/15 16:14

## EAST Search History (Interference)

Ref#	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	0	(volt\$8 or potential) with (sulfuric acid or "h. sub.2so.sub.4") with (oxygen or "o.sub.2") with (activat\$5 or swe\$8 or cycl \$8 or ramp\$6).clm.	US-PGPUB; USPAT; UPAD	ADJ	ON	2010/12/16 16:34
L4	8	(volt\$8 or potential) with (sulfuric acid or "h. sub.2so.sub.4") with (oxygen or "o.sub.2").clm.	US-PGPUB; USPAT; UPAD	ADJ	ON	2010/12/16 16:35

## 12/16/2010 4:43:33 PM

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